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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/595,698   | 05/05/2006  | Hiroki Wakamatsu     | 36856.1438          | 4986             |
| 54066  | 7590        | 02/20/2009           | EXAMINER            |                  |
| MURATA MANUFACTURING COMPANY, LTD.<br>C/O KEATING & BENNETT, LLP<br>1800 Alexander Bell Drive<br>SUITE 200<br>Reston, VA 20191 |             |                      | HARVEY, JAMES R     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2833                |                  |
|  |             |                      | NOTIFICATION DATE   | DELIVERY MODE    |
|  |             |                      | 02/20/2009          | ELECTRONIC       |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JKEATING@KBIPLAW.COM  
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|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/595,698             | WAKAMATSU ET AL.    |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | James Harvey           | 2833                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 05 May 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 11-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 11-23 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 05 May 2006 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5-5-06 and 12-11-08</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

***DETAILED ACTION***

**CANCELLATION OF CLAIMS**

\*\* The cancellation of claim(s) 1-10 has been made of record.

***Claim Rejections - 35 USC § 103***

- \* The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

\*\* The following claim(s) is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Petit (6399475; herein referred to as pp ).

In reference to Claim(s) 11, Applicant's Admitted Prior Art ( figures 4-6 ) shows substantially the invention as claimed. Applicant's Admitted Prior Art teaches Ni and Au as first and second metal layers.

The difference between Applicant's Admitted Prior Art and applicant's claimed invention is the absence of solder 32 on the second principle surface 12 in applicant's claimed invention (illustrated in applicant's figure 2). Further, Applicant's Admitted Prior Art does not show the first metal layer is Nickel-Cobalt).

Applicant's Admitted Prior Art ( figure 5 ) shows the solder 32 placed on the side 13 is used to solder the contact component to the board 31. The solder migrates up the vertical the side 13 and onto the horizontal second principle surface 12.

The problem with the solder 32 migrating to the second principle surface 12 is that it may interferes with the mating connector that goes over the fitting portion 4.

It is known in the art that solder migrates. Pp teaches ( column 1, line 50 that solder migrates. Further, pp also shows applicant's claimed Nickel-cobalt as the first metal layer ( column 1, lines 26-28) and gold as the second metal layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be able to use the teachings of pp with Applicant's Admitted Prior Art.

The rationale for such a rejection is that one skilled in the art could have combined the known elements and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

In reference to Claim(s) 12, Applicant's Admitted Prior Art ( figure 5 ) is seen to show the same edge-line 14 that is shown in applicant's figure 2.

In reference to Claim(s) 18, the reference(s) shows applicant's claimed structure.

In reference to Claim(s) 20-23, Applicant's Admitted Prior Art shows the board 31 and pp shows the solder ( column 3, lines 1-5 ) and (Sn-Ag) has not Pb.

\*\* The following claim(s) is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art, as modified by pp.

In reference to Claim(s) 13 and 14, Applicant's Admitted Prior Art in view of pp shows substantially the invention as claimed.

However, the reference(s) is not explicit as to the details of over 10% Co by weight.

The examiner makes official notice that it is known to have more than 5 or 10% cobalt by weight.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be able to adjust the percent of cobalt by weight.

The rationale for such a rejection is that one skilled in the art could have combined the known elements and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

In reference to Claim(s) 15-17, the reference(s) shows substantially the invention as claimed.

However, neither Applicant's Admitted Prior Art or pp is not explicit as to the details of plating or cladding.

It is noted that the PCT examination notes that plating and cladding are known in the art. The examiner makes official notice that plating and cladding are known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be able to plate or clad as claimed.

The rationale for such a rejection is that one skilled in the art could have combined the known elements and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

In reference to Claim(s) 19, the reference(s) shows substantially the invention as claimed. However, the refs is not explicit as to the details of the coaxial connector. The examiner makes official notice that coaxial connectors are known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be able to use a known coaxial connector.

The rationale for such a rejection is that one skilled in the art could have combined the known elements and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

***Conclusion***

- The prior art listed on PTO form 892 that is made of record and not relied upon is considered pertinent to applicant's disclosure because it shows the state of the art with respect to applicant's claimed invention.
- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 571-272-2007.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on 571-272-2800 extension 33.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

/James Harvey/  
James Harvey  
Primary Examiner